

Refractive Index	n_d	1,51633 1,516330	Abbe Number	ν_d	64,14	Dispersion	$n_F - n_C$	0,008050
Refractive Index	n_e	1,518251	Abbe Number	ν_e	63,93	Dispersion	$n_F - n_{C'}$	0,008107

Refractive Indices		
$\lambda(\mu m)$		
n_{2325}	2.32542	1,48899
n_{1970}	1.97009	1,49462
n_{1530}	1.52958	1,50050
n_{1129}	1.12864	1,50536
n_t	1.01398	1,50686
n_s	0.85211	1,50935
$n_{A'}$	0.76819	1,51097
n_r	0.70652	1,51243
n_C	0.65627	1,51386
$n_{C'}$	0.64385	1,51425
n_{He-Ne}	0.6328	1,51462
n_D	0.58929	1,51626
n_d	0.58756	1,51633
n_e	0.54607	1,51825
n_F	0.48613	1,52191
$n_{F'}$	0.47999	1,52236
n_{He-Cd}	0.44157	1,52564
n_g	0.435835	1,52621
n_h	0.404656	1,52977
n_i	0.365015	1,53578

Constants of Dispersion Formula	
A ₁	1,15150190E+00
A ₂	1,18583612E-01
A ₃	1,26301359E+00
B ₁	1,05984130E-02
B ₂	-1,18225190E-02
B ₃	1,29617662E+02

Chemical Properties	
Water Resistance (Powder) Group RW(P)	2
Acid Resistance (Powder) Group RA(P)	1
Weathering Resistance (Surface) Group	1~2
Acid Resistance (Surface) Group SR	1.0
Phosphate Resistance PR	2.0

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	80,0
Rigidity Modulus G (10 ⁹ N/m ²)	33,2
Poisson's Ratio σ	0,205
Knoop Hardness Hk [Class]	570 6
Abrasion Aa	94
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	2,79

Partial Dispersions	
$n_C - n_t$	0,006993
$n_C - n_{A'}$	0,002882
$n_d - n_C$	0,002475
$n_e - n_C$	0,004396
$n_g - n_d$	0,009884
$n_g - n_F$	0,004309
$n_h - n_g$	0,003554
$n_i - n_g$	0,009571
$n_{C'} - n_t$	0,007389
$n_e - n_{C'}$	0,004000
$n_F - n_e$	0,004107
$n_i - n_F$	0,013427

Relative Partial Dispersion	
$\theta_{C,t}$	0,8687
$\theta_{C,A'}$	0,3580
$\theta_{d,C}$	0,3075
$\theta_{e,C}$	0,5461
$\theta_{g,d}$	1,2278
$\theta_{g,F}$	0,5353
$\theta_{h,g}$	0,4415
$\theta_{i,g}$	1,1889
$\theta'_{C,t}$	0,9114
$\theta'_{e,C'}$	0,4934
$\theta'_{F,e}$	0,5066
$\theta'_{i,F'}$	1,6562

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	0,0211
$\Delta \theta_{C,A'}$	0,0044
$\Delta \theta_{g,d}$	-0,0037
$\Delta \theta_{g,F}$	-0,0024
$\Delta \theta_{i,g}$	0,0010

Thermal Properties	
Strain Point STP (°C)	532
Annealing Point AP (°C)	563
Transformation Temperature Tg (°C)	576
Yield Point At (°C)	625
Softening Point SP (°C)	718
Expansion Coefficients (-30~+70°C)	72
α (10 ⁻⁷ /°C) (+100~+300°C)	86
Thermal Conductivity k (W/m·K)	1,13

Coloring			
λ_{80}	320	λ_5	280
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	315	$\lambda_{0.05}$	278

CCI		
B	G	R
0,00	0,06	0,04

Internal Transmittance	
$\lambda(nm)$	τ 10mm
280	0,06
290	0,25
300	0,52
310	0,74
320	0,87
330	0,936
340	0,969
350	0,984
360	0,991
370	0,994
380	0,995
390	0,997
400	0,998
420	0,998
440	0,997
460	0,997
480	0,997
500	0,998
550	0,999
600	0,999
650	0,998
700	0,999
800	0,999
900	0,998
1000	0,998
1200	0,998
1400	0,973
1600	0,989
1800	0,968
2000	0,933
2200	0,82
2400	0,77

Other Properties	
Density d	2,52

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dT relative (10 ⁻⁶ /°C)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	2,1	2,3	2,3	2,4	2,5	2,7	3,0
-20~ 0	2,1	2,4	2,4	2,5	2,6	2,8	3,1
0~20	2,2	2,5	2,5	2,6	2,7	3,0	3,2
20~40	2,2	2,6	2,6	2,7	2,8	3,1	3,3
40~60	2,3	2,6	2,7	2,8	2,9	3,2	3,5
60~80	2,4	2,7	2,7	2,9	3,0	3,3	3,6